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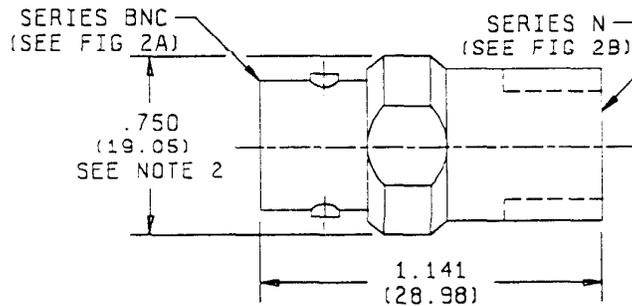
MIL-PRF-55339/1A
 29 April 1975
 SUPERSEDING
 MIL-A-55339/1
 1 July 1971

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,
 (SERIES BNC TO SERIES N), CLASS 2

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for procuring the adapter described herein shall consist of this document and the latest issue of Specification MIL-PRF-55339.



NOTES:

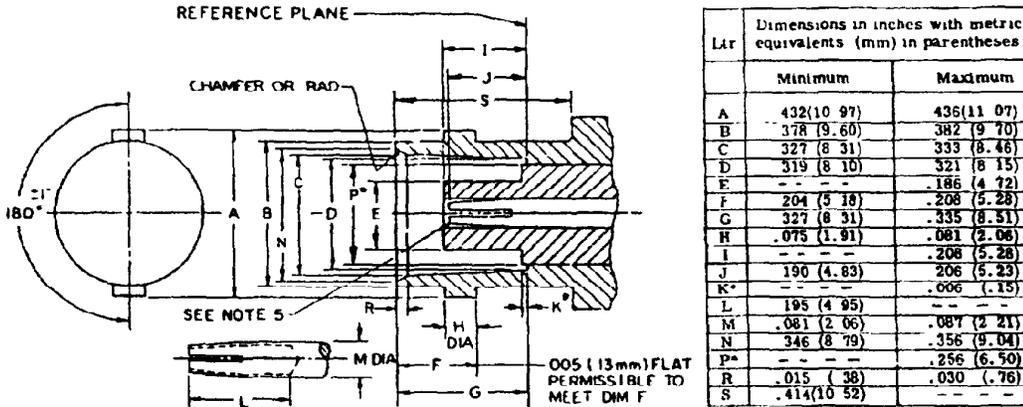
1. Dimensions are in inches.
2. This dimension is the largest overall diameter of the adapter.
3. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.

FIGURE 1. General configuration.

DESIGN AND CONSTRUCTION:

| | |
|-----------------------------|------------------|
| General configuration ----- | See figure 1. |
| Impedance ----- | 50 ohms, nom. |
| Working voltage: | |
| Sea level ----- | 500V rms. |
| 70,000 feet ----- | 125V rms. |
| Frequency range ----- | 0 to 4,000 MHz. |
| Temperature range ----- | -65° to +165° C. |

Ⓐ denotes changes



* P dimension applies to that portion (if applicable) of dielectric which extends beyond reference plane by dimension K*.

FIGURE 2A Series BNC (see note 3)

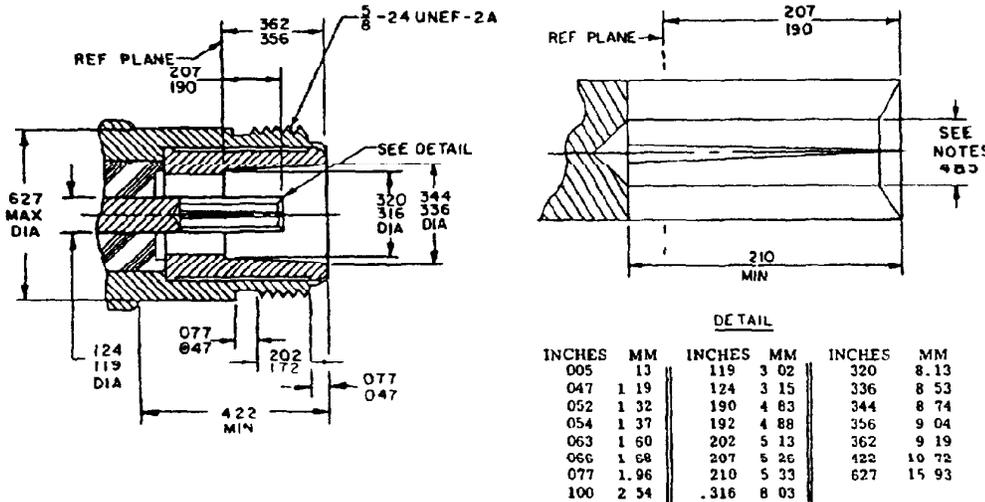


FIGURE 2B. Series N (see note 4)

NOTES

1. Dimensions are in inches
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. For series BNC only, concave depression .100 x .005 in. deep between studs is permissible.
4. For series N only, slitting of center contact is optional
5. ID to meet VSWR and contact resistance when mated with .054/.052 dia pin (series BNC), or .066/.063 dia pin (series N)

FIGURE 2 Mating dimensions

PERFORMANCE (installation torque of 6 to 10 in lb, series N only)

Dimensions - See figures 1 and 2.

Contact resistance (in milliohms, max).

Center contact retention
 Axial force - 6 lb, min.
 Torque - 4 in oz, min

Initial After environment

| | | |
|----------------|-----|-----|
| Center contact | 2 0 | 2 5 |
| Outer contact | 0 2 | 0 2 |

Force to engage and disengage:
 See table I.

Vibration, high frequency. Method 204 of MIL-STD-202, test condition B

Coupling proof torque: 15 in. lb, max (series N only)

Shock (specified pulse): Method 213 of MIL-STD-202, test condition B.

Mating characteristics:
 Center contact - See table I.
 Outer contact - Not applicable

(A) Thermal shock Method 107 of MIL-STD-202, test condition B.

Permeability: Less than 2.0

Seal (hermetic, pressurized, and weatherproof): Not applicable

Moisture resistance Method 106 of MIL-STD-202
 Insulation resistance - 200 megohms, min

Insulation resistance Method 302 of MIL-STD-202, test condition B.
 5,000 megohms, min.

Corona level: 375V, min
 Altitude 70,000 feet

VSWR: 1.30, max, at 500 to 4,000 MHz.

RF high potential withstanding voltage
 RF voltage - 1,000V rms
 Frequency - 5 MHz

RF leakage (total): -55 dB, min, at 2 to 3 GHz.

RF insertion loss: .2 dB, max, at 3 GHz
 (.12 $\sqrt{F(\text{GHz})}$ dB max tested at 3 GHz)

Salt spray (corrosion). Method 101 of MIL-STD-202, test condition B.

Durability: 500 cycles, min, at 12 c/m

Coupling mechanism retention force
 Not applicable

Dielectric withstanding voltage: Method 301 of MIL-STD-202.
 Test voltage - 1,500V rms, max, at sea level

(A) MARKING: As specified in MIL-A-55339 Part No M55339/01-00001.

TABLE I. Performance characteristics

| Characteristic | Test value | |
|--|-------------------|---------------|
| | Series BNC | Series N |
| Force to engage and disengage: | | |
| Longitudinal force - - - - - | 3 lb, max | 3 lb, max |
| Torque - - - - - | 2-1/2 in. lb, max | 10 in lb, max |
| Mating characteristics (center contact): | | |
| Oversize test pin (inserted .125 in. deep) - - - - | .057 in dia | .074 in dia |
| Max test pin (insertion force 2 lb, max) - - - - - | .054 in dia | .066 in dia |
| Min test pin (withdrawal force 2 oz, min) - - - - | .052 in dia | .063 in dia |

MIL-A-55339/1A

Custodians:

Army - EL
Navy - EC
Air Force - 11

Review activities

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Navy - SH
Air Force - 11, 17, 80
DSA - ES

User activities

Army - AT
Navy - AS, MC
Air Force - 19

Preparing activity:

Army - EL

Agent

DSA - ES

(Project 5935-1986-1)

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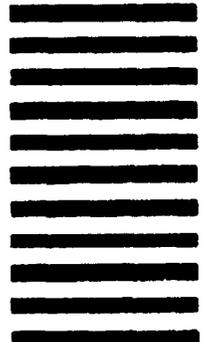


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